DOCUMENT RESUME

ED 031 126 FL 001 402

By-Kapitanoff, Lorraine T.

The Teaching of Technical Russian.

Pennsylvania State Univ., University Park. Dept. of Slavic Languages.

Pub Date 62

Note-6p.; Paper presented at the Conference on the Teaching of Russian in Pennsylvania (1st, Pennsylvania State University, University Park, Pa., May 18-19, 1962)

EDRS Price MF-$0.25 HC-$0.40

Descriptors-Course Content, *Course Descriptions, Course Objectives, *Grammar Translation Method, *Language Instruction, Language Teachers, *Russian, Science Courses, Scientific Concepts, Scientific Research, Second Language Learning, Teacher Background, Teacher Developed Materials, Teaching Procedures, Technical Writing

A course in technical Russian is shown to differ from the usual language course in aims (translation, not oral skills), rate, caliber and motivation of student, demands on the background of the teacher, and material used. A sample outline of class procedure is included. (GK)

From: Magner, Thomas F., Ed.
The Teaching of Russian:
Reports and Papers.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED031126

THE TEACHING OF TECHNICAL RUSSIAN

by

Lorraine T. Kapitanoff
Pennsylvania State University

As our chairman has forwarned you, I am going to talk to you briefly about the teaching of Technical Russian. Probably the first questions which come to mind are "What is technical Russian?" "Why should technical Russian be taught at all?" and "Why has it been included in a panel on the teaching of post-elementary Russian?"

Perhaps the last question should be answered first. Our course in technical Russian is highly accelerated in nature, the compression ratio being about 3 to 1, or, in laymen's terms, grammatical material ordinarily covered in about three terms of undergraduate Russian is compressed into a single term. In view of this it is, I think, readily apparent that, after the first two or three class periods, such a course is well on its way to being post-elementary. Undoubtedly such rapidity of pace is responsible for some of the endearing epithets which students have good-naturedly bestowed upon the course over the years - the more appropriate ones being "The Shotgun Special", "The Bonecrusher" and "The Russian Mystery Hour".

The second question which pertains to the validity of including such a course in the Russian curriculum can be answered with an emphatic "Yes". In any institution which offers graduate work at the doctoral level, with its attendant language requirement, a technical Russian course is indeed a necessity. Obviously there are two good reasons for this, the first being that the tremendous forward plunge of the Soviet Union into scientific pursuits has catapulted the Russian language into a position of being one of the two basic languages of present-day science. Our science departments have recognized this fact of contemporary life and are strongly urging, if not demanding, that Russian be studied as one of the two required languages for the doctoral degree. Since the importance of the position of Russian as a language of science has been established there has been a shift of students toward the study of this language and the old time-comsuming approach of attending undergraduate classes with their largely oral-aural approach simply does not work for the technical student. I can assure you with heartfelt conviction from personal experience that a background in the Russian of Pushkin, Dostoevski and Tolstoi are indeed poor preparation for coping with the participle-ridden language of the modern Russian scientist! Equally inadequate is the average attempt of a student to learn Russian on his own. Fortunately or unfortunately for those of us in the teaching profession, Russian simply does not lend itself well to the do-it-yourself technique of language learning! Therefore, since Russian <u>is</u> so important in equipping young scientists and <u>is</u> so difficult as a subject of independent study, on this basis alone, its inclusion in the Russian curriculum is valid.

FL 001 402

The demands of a graduate program are, however, only a part of the reason for teaching technical Russian. As a consultant for a large industrial concern I am continually appalled by the enormous amount of overlapping research which Russian and American scientists conduct. Countless man-hours and huge sums of money can be saved once we educate American scientists and technicians to read Russian. Fortunately, this same conclusion has been reached by many teachers, scientists and engineers who have long since completed the formal part of their educations. Such persons, fully realizing the need to be able to read available Russian materials in their own fields, rather than relying upon the agonizingly slow, and sometimes wholly inadequate products of translation organizations, are enrolling in technical Russian courses. Such persons can contribute immeasurably to the American scientific effort since, as opportunities to study technical Russian are made more widely available, a cadre of trained individuals will emerge.

Granting that the study of technical Russian is a necessity, then we must define what technical Russian is and in what respects it is specialized. First of all while most of us think of technical Russian primarily in terms of scientific Russian it must be added that technical Russian can and does embrace non-scientific areas. Broadly then it may be said that technical Russian is the study of that language as it applies to a specific field of interest or specialization.

Virtually everything about technical Russian, except the alphabet and pronunciation, differs to some degree from the study of Russian as we normally know it. The aim, the scope, the student population, the teacher, the material and the teaching method, - all are specialized.

Perhaps a brief summary of each of these factors will illustrate these differences for you.

The aim certainly is easily defined. In the simplest possible terms the aim of a technical Russian course is to teach the most Russian possible in the shortest time possible. I think there is no other area in which the student and the teacher so closely agree in the aim of the course.

The scope of the course is implicit in the aim. Since this aim is equipping the student with as wide a knowledge as possible in as short a time as possible, then the scope of the course must be to impart as much grammatical material and to encompass as much mastery of translating techniques as can be covered in the allotted time span.

The bulk of the student population of such a course in our institution is drawn from among doctoral candidates in the sciences. The majority are pursuing studies in the physical sciences; others are working in the biological sciences. We draw students as well from psychology, the social sciences, mathematics, etc. A sprinkling of seniors who anticipate graduate study also enroll in the course as well as a fair number of faculty members and technically trained persons who are employed in the area. The motivation of all of these groups is of the highest order. The teacher of technical Russian can bask in the luxury of virtually undivided class attention as well as nearly

perfect class attendance. These are serious students possessing good study habits and powers of concentration. The teacher of technical Russian enjoys a singular freedom from the dilettante or the poor soul who, being trapped in a four-term undergraduate requirement, has benightedly elected to study Russian!

The teacher need not be a scientist per se but a broad, highly accurate and contemporary knowledge of basic sciences including chemistry, physics, biology, botany and geology as well as some knowledge of mathematics, electronics, psychology and basic engineering concepts is highly desirable. While some technical background is valuable to the teacher experience as a translator and a solid grasp of Russian grammar, are more important. The ability to codify grammatical items for class presentation is essential. A modicum of sympathy, a large dose of patience, a loud and untiring voice and an ability to say with good grace "I'm sorry but I don't know the answer to that question" would be nice optional equipment.

The material will be as varied as the student populating the course. All of this material will, however, possess certain common properties. It will be contemporary, non-literary, written Russian. It will be peppered with participles and gerunds and salted with technical cliches. In addition each field will possess a micro-language or jargon of its own.

How then does the instructor go about presenting such a course? First of all the teacher must come to grips with the fact that this is an applied course and techniques valid in teaching the language as a whole do not apply here. Student and teacher goals are homogeneous; the student population is eager and capable. Oral skills are ignored completely, or virtually so. The student has no need for synthesis since this course is a one-way street. He is never faced with the problem of translating English into Russian but only with the problem of translating Russian into English, thus making the course analytic in nature. With all these factors in mind, the instructor can comfortably assume that here is a situation in which, for once, the end does justify the means!

I don't know whether what I am about to outline is the best way to teach technical Russian or not, I don't even know if it is a good way. I do know, however, that it works. At the end of ten weeks the survival rate is virtually one hundred percent and the survivors, with the aid of a stack of dictionaries and a goodly supply of honest sweat and black coffee can, and do, read technical Russian.

This is the way I do it! In the first 75-minute period, familiarization with the Cyrillic alphabet is standard operating procedure. This includes recognition of printed symbols, basic sound values, reading aloud from a simple word list in the textbook[1] and handwriting practice. In the second class meeting handwriting is checked individually and a rudimentary phonetic presentation is given. The students invariably react with a sense of outrage when phonetic material is introduced.

---

1 Magner, Thomas F., Manual of Scientific Russian, Prentice-Hall, 1959.

They are certain that this is a waste of valuable time since they have no pretensions to speaking or even reading aloud. The protests die quickly when their attention is directed to a list of cognates which, while visually strange, are aurally familiar. One student summed it up most succinctly when he said "Gee, ЦИКЛОТРО́Н sure sounds more like English than it looks". Students later readily agree that the small amount of time spent on learning the sounds of the language is more than offset by the many words which they are able, subsequently, to recognize by verbalization.

Once the alphabet and handwriting are mastered we are ready to go in earnest. Beginning with the noun, each grammatical category is studied in broad outlines. The technique here is much like gross anatomy followed by histology! In other words we go from the large parts to the fine details of the grammatical categories.

The textbook is relied upon heavily to provide the skeleton. The finer details are supplied from notes compiled by the teacher who seeks to equip the students with a compendium of grammar details which will facilitate working back to the lexical item which is sought. All common irregularities and peculiarities are covered and many of the less common, but still useful, idiosyncrasies of the language are touched upon as well. When a word cannot be found in the dictionary, the student quickly learns to run through possible categories of irregularities and soon becomes adept at sleuthing out the dictionary form.

This technique is applied to all categories and is particularly valuable in verb forms. Along with this, students are instructed in the use of extremely helpful compilations in their textbook which dovetail perfectly with this technique.

Participial and gerundial forms are studied in depth since correct handling of these items is extremely important in good translation work. Students are encouraged to make lists of cliches which occur commonly and to jot down verbs which take their predicates in cases other than the accusative.

Extensive familiarization with case usage is valuable and word derivation and relationship is emphasized.

Lest you get the impression that all of this is taught in a sort of grammatical waste-land let me correct this impression at once. Translation begins almost immediately starting with such simple equational sentences as Фи́зика - нау́ка , and progresses through the useful and diversified selections in the textbook.

Students are initiated into the mystic realm of the Russian number system and are taught to cope both with the presence, and absence, of punctuation and capitalization - so characteristic of the Russian language.

Students are taught how to block out a sentence for translation as well as how to handle the myriad of clauses which frequently make up a complex Russian statement.

Students are not required to memorize vocabulary items since vocabulary is almost entirely passive in work of this nature and use of a dictionary is permissable at all times. Nevertheless a reasonable amount of vocabulary is mastered by each student through sheer exposure.

No written work is required during the term and no testing is done. Mastery of the course content is based on two criteria, the first being a translation of a five-page paper chosen jointly by student and instructor in the student's field and of "Academy of Sciences calibre". This paper is translated outside the class-room with any tools the student deems necessary and is submitted with the Russian original to the instructor in the ninth week of the ten-week term. It is read and evaluated by the teacher who then goes over all errors individually with the student. The other criterion is a final examination which students take in class aided only by dictionaries. This consists of four or five short selections in various fields and progress here is guaged by both quantity and quality of selections completed. This enables the instructor to further evaluate the student and gives the student an experience similar to the actual Ph.D. language examination, although in the latter the selection would be from a work known to the student and would be monographic in nature.

What happens to the students when they have finished the course? If they are degree candidates by and large they continue to translate on their own for a short time, (with frequent SOS's beamed at the teacher when the going gets too tough). Eventually the majority of them take the Ph.D. language examination and again the majority pass it on the first, or second, attempt. Some come back for a third try, while some apparently have second thoughts and never present themselves at all for the Ph.D. language examinations.

Of all "alumni" of the course a fair percentage appears to keep up its reading knowledge. This I can only judge, however, from individuals among that group which remains in residence and who, not infrequently, drop by or telephone for consultation on a thorny translation problem.

In closing I would like to give you a few thoughts on my attitude toward this course. First of all I feel obligated to teach it as well and as accurately as possible and to constantly seek methods of improving teaching competence. I likewise feel obligated to read as widely as possible in current Russian technical periodicals. In addition, I find it equally necessary to try to keep abreast of American technical advances.

In addition to these more or less obvious requirements I feel several other <u>compelling</u> obligations toward both the course and the stuents:

Above all, I feel deeply obligated to instill, from the very beginning, a meticulous sense of accuracy in students of this course. By refusing to accept any cavalier approach or inexactitute, no matter how small, I feel that this can be achieved.

Secondly, I feel it my duty to insist that the students dismiss pre-conceptions from their minds before attempting a translation. It is unbelievable how a translation can be manipulated and distorted to fit a bias or set of mind; therefore, students should be trained to use their technical knowledge only as a criterion of feasibility.

Finally, healthy skeptism should be encouraged - suspicion should not. Many students have a bad habit of "pre-damning" any Russian work simply because it is Russian and such students must learn that a scientist can be, and more often than not, is a person of great integrity and competence regardless of his nationality.

Finally I feel that teaching this course is both challenging and rewarding. I'm sure that any teacher worth his salt has a little of the missionary spirit and to me there is no greater reward than to have a student in this course "catch fire" and go on to learn the spoken language as well, unless of course it is to see some student whom I have taught come bursting into my office wildly waving a Ph.D. exam paper and shouting "I passed it, I passed it".